



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,992	09/11/2003	Morten Brok Gentsch	112740-868	9337

29177 7590 04/19/2006

BELL, BOYD & LLOYD, LLC  
P. O. BOX 1135  
CHICAGO, IL 60690-1135

EXAMINER

DEAN, RAYMOND S

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/661,992

Applicant(s)

GENTSCH ET AL.

Examiner

Raymond S. Dean

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1204</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 18 recites the limitation "the step of controlling" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 11 does not specifically mention a controlling step.
3. The word "adapted" renders the claim 12 indefinite because it is unclear as to what is actually set forth. The use of the word "adapted" makes it unclear as to what function is actually taking place thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2618

5. Claims 1 – 5, 8 – 15, and 18 – 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Damgaard et al. (US 6,670,849).

Regarding Claim 1, Damgaard teaches a power control system for a radio transceiver, comprising: an amplifier for amplifying a signal to result in an amplified signal, the amplified signal including data bursts (Figures 1, 2, Columns: 1 lines 48 – 57, 3 lines 61 – 66, 5 lines 38 – 41); parts for obtaining a first voltage corresponding to a power of the amplified signal (Column 5 lines 38 – 41,  $P=VI$  thus the voltage  $V$  is known if the power  $P$  is known); time masking parts for measuring the first voltage, in at least one time window with a predefined length, of a first data burst to be used in a comparison step (Figure 2, Columns: 1 lines 48 – 57, 3 lines 61 – 66, 7 lines 20 – 25, the power level is known thus the voltage level is known); a comparator for comparing the first voltage with a reference voltage and producing a comparison result (Figure 2, Column 7 lines 20 – 25); and a controller responsive to the comparator for adjusting a control signal of the amplifier if the comparison result indicates that the first voltage deviates more than a predefined threshold value from the reference voltage, wherein the controller adjusts the control signal of the amplifier after a predetermined time delay after the at least one time window has lapsed (Figure 2, Columns: 1 lines 48 – 57, 3 lines 61 – 66, 7 lines 20 – 45, since this is a burst system there will be times when the control element adjusts the error signal after a period of time after the time window for the burst has lapsed).

Regarding Claim 2, Damgaard teaches all of the claimed limitations recited in Claim 1. Damgaard further teaches wherein the time masking parts select a time

window located at an edge of an active burst (Columns: 1 lines 48 – 57, 3 lines 61 – 66, since this is a burst system there will be time windows for the measurement of the bursts).

Regarding Claims 3, 13, Damgaard teaches all of the claimed limitations recited in Claims 2, 12. Damgaard further teaches wherein the edge is in one of a ramp up position and a ramp down position of the active burst (Column 1 lines 48 – 57).

Regarding Claims 4, 14, Damgaard teaches all of the claimed limitations recited in Claims 1, 11. Damgaard further teaches wherein the predetermined time delay corresponds to a delay between a moment in time at which a value of the control signal is obtained and a time at which a subsequent data burst begins (Figure 2, Columns: 1 lines 48 – 57, 3 lines 61 – 66, 7 lines 20 – 45, since this is a burst system there will be times when the control element adjusts the error signal before the transmission of a subsequent burst).

Regarding Claims 5, 15, Damgaard teaches all of the claimed limitations recited in Claims 4, 14. Damgaard further teaches wherein the subsequent data burst is a next data burst to the first data burst for which the first voltage was measured (Columns: 1 lines 48 – 57, 3 lines 61 – 66, 7 lines 20 – 45, since this is a burst system there will be subsequent bursts).

Regarding Claim 8, Damgaard teaches all of the claimed limitations recited in Claim 1. Damgaard further teaches wherein at least one of the time masking parts and the controller are at least partially implemented using software code run in a processor (Column 4 lines 3 – 10).

Regarding Claims 9, 19, Damgaard teaches all of the claimed limitations recited in Claims 1, 11. Damgaard further teaches wherein the power control system is implemented in a mobile terminal (Column 3 lines 61 – 66).

Regarding Claims 10, 20, Damgaard teaches all of the claimed limitations recited in Claims 1, 11. Damgaard further teaches wherein the power control system is implemented in a base station terminal (Column 3 lines 61 – 66, typical base stations use non-linear amplifiers).

Regarding Claim 11, Damgaard teaches a method for power control in a radio transceiver, the method comprising the steps of: amplifying a signal to result in an amplified signal, the amplified signal including data bursts (Figures 1, 2, Columns: 1 lines 48 – 57, 3 lines 61 – 66, 5 lines 38 – 41); obtaining a first voltage which corresponds to an output power of the amplified signal (Column 5 lines 38 – 41,  $P=VI$  thus the voltage  $V$  is known if the power  $P$  is known); selecting at least one time window with a predefined length for a first data burst; measuring the first voltage, in the at least one time window with the predefined length, of the first data burst to be used for a comparison (Figure 2, Columns: 1 lines 48 – 57, 3 lines 61 – 66, 7 lines 20 – 25, the power level is known thus the voltage level is known); comparing the first voltage with a reference voltage and producing a comparison result (Figure 2, Column 7 lines 20 – 25); and adjusting, in response to the step of comparing, a control signal which is used in adjusting the step of amplifying if the comparison result indicates that the first voltage deviates more than a predefined voltage value from the reference voltage, wherein the step of adjusting is adapted to adjust the control signal after a predetermined time delay

Art Unit: 2618

after the at least one time window has lapsed (Figure 2, Columns: 1 lines 48 – 57, 3 lines 61 – 66, 7 lines 20 – 45, since this is a burst system there will be times when the control element adjusts the error signal after a period of time after the time window for the burst has lapsed).

Regarding Claim 12, Damgaard teaches all of the claimed limitations recited in Claim 11. Damgaard further teaches wherein the step of selecting is adapted to select a time window located at an edge of an active data burst (Columns: 1 lines 48 – 57, 3 lines 61 – 66, since this is a burst system there will be time windows for the measurement of the bursts).

Regarding Claim 18, Damgaard teaches all of the claimed limitations recited in Claim 11. Damgaard further teaches wherein at least one of the step of comparing and the step of controlling is at least partially implemented using software code (Column 4 lines 3 – 10).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2618

7. Claims 6 – 7 and 16 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damgaard et al. (US 6,670,849) in view of 3GPP TS 45.005 v5.2.0, hereafter 3GPP.

Regarding Claims 6, 16, Damgaard teaches all of the claimed limitations recited in Claims 4, 11. Damgaard does not teach wherein the predefined length of the at least one timing window is approximately 4 microseconds.

3GPP teaches wherein the predefined length of the at least one timing window is approximately 4 microseconds (Page 78, Figure B.2, the 3GPP specification defines the 2+2 microseconds period, which is 4 microseconds).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the GSM system of Damgaard with the time mask circuitry of 3GPP for the purpose of enabling said system to meet the requirements of the pan-European digital cellular telecommunications systems, which is GSM.

Regarding Claims 7, 17, Damgaard teaches all of the claimed limitations recited in Claims 1, 11. Damgaard does not teach wherein the predefined length of the at least one timing window is variable.

3GPP teaches wherein the predefined length of the at least one timing window is variable (Page 78, Figure B.2, Page 79, Figure B.3, the window is variable normal bursts and access bursts).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the GSM system of Damgaard with the time mask



Art Unit: 2618

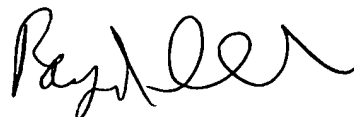
circuitry of 3GPP for the purpose of enabling said system to meet the requirements of the pan-European digital cellular telecommunications systems, which is GSM.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond S. Dean whose telephone number is 571-272-7877. The examiner can normally be reached on Monday-Friday 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). **PLEASE NOTE:** Art Unit 2684 is now Division 2618.



Raymond S. Dean  
April 11, 2006



EDWARD F. URBAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600